乞掲示

理化学研究所原子核セミナー　*2005. 7. 20*

講師 ： **Dr. Dave Kawall**

(RIKEN-BNL Research Center)

題目 ： Testing Fundamental Symmetries with Molecules

∗ The seminar will be given in *English.*

日時 ： 2005 年 7 月 20 日 (Wed.)　14:00 –

場所 ： RIKEN Main Bldg. 2F Seminar Room

Abstract

There is no evidence that any elementary particle, atom, or molecule possesses a permanent electric dipole moment (EDM). In the Standard Model (SM), a system can acquire an EDM through P and T-violating radiative corrections, but it is unobservably small.

However, many theories of physics beyond the SM predict new particles and T-violating phases. These result in greatly enhanced EDMs, and motivate an experiment I'll describe which uses PbO as a system in which to search for the EDM of the electron. If successful, this experiment will reduce the limit on the electron EDM by two orders of magnitude, with important implications for theories of physics beyond the standard model.

∗ Host researcher : K. Tanida (RIKEN)

原子核セミナーについてのお問い合わせ

T. Haseyama, and D. Kameda (Applied Nucl. Phys. Lab.)

(email)　seminar@rarfaxp.riken.jp

(FAX)　048–462–4645

(WWW)　http://rarfaxp.riken.jp/~seminar/